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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,606	03/25/2004	Tsukasa Takahashi	1095.1307	5026

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WASHINGTON, DC 20005

EXAMINER

ABDIN, SHAHEDA A

ART UNIT	PAPER NUMBER
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2609

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/808,606	Applicant(s) TAKAHASHI, TSUKASA	
	Examiner Shaheda A. Abdin	Art Unit 2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/25/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Maxham et al. (US Patent No: 6411407).

Regarding claim 1 and 3:

As shown in figure 1A, 3 and 5 Maxham et al. discloses an optical transmission system and method for performing WDM optical transmission comprising:

An optical transmission system for performing WDM optical transmission, comprising an optical transmission device (13 b, fig. 1A) and an optical reception device (19 b, fig. 1A);

wherein said optical transmission device includes,

an optical-supervisory-signal generation unit (14 a, module 22, see in fig. 1A) which generates a first optical supervisory signal (14 a₁, module 30, see fig. 3) being arranged on a shorter-wavelength side (530-1545nm, wavelength side) of main signals and containing information for use in determination of continuity (column 4, lines 51-66

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and fig. 3) transmission line (26) and a second optical supervisory signal (14 a₂, see fig. 3) arranged on a longer-wavelength side (1545-1560 nm, wavelength side) of the main signals.

an optical multiplexing unit (WDM multiplexer, fig. 5, also see fig. 4), which generates a wavelength-multiplexed signal by optically multiplexing the main signals (In 1- In N, fig. 5) and the first and second optical supervisory signals, and transmits the wavelength-multiplexed signal onto said optical transmission line (column 4, lines 11-16, column 5, lines 47-66, fig. 5);

said optical reception device (19 b, fig. 1A) includes,

an optical demultiplexing unit (WDM Demultiplexer) that receives said wavelength-multiplexed signal, and optically demultiplexes the wavelength-multiplexed signal into said main signals (Out 1- Out N, fig. 5), said first optical supervisory signal, and said second optical supervisory signal (column 5, lines 47-66, fig. 5),

an optical-supervisory-signal reception unit that determines whether or not said optical transmission line is optically continuous, based on the first optical supervisory signal (in fig. 3, "pass-thru" lines, interconnecting the two modules and generated optical supervisory channel wavelength and added to the multi-wavelength WDM composite at the input of the second stage of the amplifier 13b using a wavelength multiplex filter (A) because the supervisory channel is terminated and generated at every network element that means , degradations or failure caused by passing through the low performance wavelength region of the amplifier) . (column 4, lines 51-66, fig. 3).

an optical demultiplexing unit (52, fig 4) which receives a second wavelength-multiplexed signal through a second optical transmission line (54, fig 4), and optically demultiplexes the second wavelength-multiplexed signal into second main signals, a third optical supervisory signal, and a fourth optical supervisory signal, where the third optical supervisory signal is arranged on a shorter-wavelength side of the second main signals, and the fourth optical supervisory signal is arranged on a longer-wavelength side of the second main signals; and an optical-supervisory-signal reception unit which determines whether or not said second optical transmission line is optically continuous based on the third optical supervisory signal (column 5, lines 15-40 fig. 3 and fig. 4),

Claim Rejections - 35 USC § 103

3. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maxham et al. (US Patent No: 6411407) in view of Onaka et al. (US Patent No: 6941078), and further in view of Iwaki et al. (US Pub. NO.: 2002/0024690).

Regarding claim 2 and 4:

Maxham et al. discloses all of the subject matter as describe above except (1) clock information (2) ASPD (Auto power Shut Down) as recited in claim 2 and 4.

(1) Regarding item (1)

Onaka et al. in the same field of endeavor, discloses clock signal information over an optical link (column 10, lines 61-66, column 11, lines 1-9, fig. 14).

Therefore, it would have been obvious to a person of ordinary skill in the

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art at the time of invention to incorporate a clock signal information as taught by Onaka et al. into the system of Maxham et al. so that the optical supervisory signal can be generated a clock signal information over an optical link to check the continuity of optical transmission line. In this configuration, the transmission capacity in a single optical fiber can be increased. Thus the cost for initial system installation can be lowered and the system can be expanded later on,

(2) Regarding item (2)

as shown fig. 23 Iwaki et al. discloses APSD (Auto Power Shutdown) function and control (ASPD which is a function of automatic stop control of a high output power amplifies and stop a WDM light output; when receiver detects an error in the OSC light, the receiver activates an APSD) ([0340], [0364], fig. 23),

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate a clock signal information system as taught by Onaka et al. and an APSD (Auto Power Shutdown) as taught by Iwaki et al. into the system of Maxham et al. so that the first optical supervisory signal can be generated a clock signal information over an optical link to check the continuity of optical transmission line and optical-supervisory-signal reception unit activate an ASPD function when the optical-supervisory-signal reception unit determines that the clock information cannot be extracted from the first optical supervisory signal. In this configuration, a flexible optical output level control in connection with variation in WDM light level, a selective value irrespective of occurrence of an error stemming from the passage of time and avoidable malfunctions are respectively capable. In addition, a

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trouble retrieving operator can eliminate the possibility of being exposed to the WDM light which will be a reliable optical transmission system with an improve signal control mechanism.

Conclusion

4. Any inquiry concerning this communication should be directed to the examiner at (571) 270-1673 Monday- Friday 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu, can be reached at (557) 272-3036.

Information regarding the status on an application may be obtained from the Patent Application information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (tool-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9799 (IN USA OR CANADA) or 571-272-1000.

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Any response to this action should be mailed to:

Commissioner of patents and trademarks

Washington, D.C. 20231

Or fax to:

(703) 872-9314 (for Technology Center 2600 only)

Shaheda Abdin

02/27/2007



SHUWANG LIU
SUPERVISORY PATENT EXAMINER

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